

Publication

**EP 0904258 A4 19990331**

Application

**EP 96933864 A 19960924**

Priority

- US 9615242 W 19960924
- US 57677895 A 19951221

Abstract (en)

[origin: WO9723436A1] A process for forming, isolating and purifying xanthophyll crystals, preferably lutein from marigold flower petals, zeaxanthin from wolfberries or capsanthin and capsorubin from red pepper, is disclosed. A xanthophyll diester-containing plant extract is saponified in a composition of propylene glycol and aqueous alkali to form xanthophyll crystals. Crystallization is achieved without the use of added organic solvents. The crystals are isolated and purified. The substantially pure xanthophyll crystals so obtained are suitable for human consumption and can be used as a nutritional supplement and as an additive in food.

IPC 1-7

**C07C 35/08**

IPC 8 full level

**C07C 27/02** (2006.01); **C07C 29/78** (2006.01); **C07C 35/08** (2006.01); **C07C 35/21** (2006.01); **C07C 37/68** (2006.01); **C07C 403/24** (2006.01)

CPC (source: EP US)

**C07C 35/21** (2013.01 - EP US); **C07C 403/24** (2013.01 - EP US)

Citation (search report)

- [A] EP 0672655 A1 19950920 - UNIV AMERICA CATHOLIC [US]
- [A] US 3523138 A 19700804 - GRANT PETER M
- See references of WO 9723436A1

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**WO 9723436 A1 19970703**; AT E215059 T1 20020415; AU 700719 B2 19990114; AU 7243496 A 19970717; CA 2239971 A1 19970703; CA 2239971 C 20040330; DE 69620258 D1 20020502; DE 69620258 T2 20021121; EP 0904258 A1 19990331; EP 0904258 A4 19990331; EP 0904258 B1 20020327; IL 124987 A0 19990126; IL 124987 A 20020725; JP 3190686 B2 20010723; JP H11508603 A 19990727; NZ 319825 A 20000526; US 5648564 A 19970715

DOCDB simple family (application)

**US 9615242 W 19960924**; AT 96933864 T 19960924; AU 7243496 A 19960924; CA 2239971 A 19960924; DE 69620258 T 19960924; EP 96933864 A 19960924; IL 12498796 A 19960924; JP 52360897 A 19960924; NZ 31982596 A 19960924; US 57677895 A 19951221